-Case 1 :

Please enter the following details:

Age: 54

Melanin Concentration: 50

Collagen Amount: 41

Epidermis Thickness: 0.25

Hydration Level: 41

Skin Type: Sensitive

Ingredient: Retinol

The predicted skin reaction is: Neutral

Please enter the following details:

Age: 54

Melanin Concentration: 50

Collagen Amount: 41

Epidermis Thickness: 0.25

Hydration Level: 41

Skin Type: Sensitive

Ingredient: Retinol

Percentage of Ingredient to be applied: 15

The predicted skin reaction is: Positive

RANDOM FORREST CLASSIFIER

Please enter the following details:

Age: 1

Melanin Concentration: 0

Collagen Amount: 0

Epidermis Thickness: 0

Hydration Level: 0

Skin Type: Oily

Ingredient: Kojic acid

Percentage of Ingredient to be applied: 20

The predicted skin reaction is: Negative

NAÏVE BAYES

Please enter the following details:

Age: 1

Melanin Concentration: 0

Collagen Amount: 0

Epidermis Thickness: 0

Hydration Level: 0

Skin Type: Oily

Ingredient: kojic acid

Percentage of Ingredient to be applied: 20

The predicted skin reaction is: Positive Reaction

SVM

Please enter the following details:

Age: 11

Melanin Concentration: 0

Collagen Amount: 0

Epidermis Thickness: 0

Hydration Level: 0

Skin Type: Oily

Ingredient: kojic acid

Percentage of Ingredient to be applied: 20

The predicted skin reaction is: Positive Reaction

**RFC**

Please enter the following details:

Age: 25

Melanin Concentration: 25

Collagen Amount: 25

Epidermis Thickness: 0.25

Hydration Level: 50

Skin Type: Sensitive

Ingredient: Retinol

Percentage of Ingredient to be applied: 45.21

The predicted skin reaction is: Irritation

**NBV**

Please enter the following details:

Age: 25

Melanin Concentration: 25

Collagen Amount: 25

Epidermis Thickness: 0.25

Hydration Level: 50

Skin Type: SENSITIVE

Ingredient: RETINOL

Percentage of Ingredient to be applied: 45.21

The predicted skin reaction is: Irritation Reaction

**SVM**

Please enter the following details:

Age: 25

Melanin Concentration: 25

Collagen Amount: 25

Epidermis Thickness: 0.25

Hydration Level: 50

Skin Type: sensitive

Ingredient: retinol

Percentage of Ingredient to be applied: 45.21

The predicted skin reaction is: Brightening Reaction

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Please enter the following details:

Age: 18

Melanin Concentration: 25

Collagen Amount: 74

Epidermis Thickness: 0.54

Hydration Level: 82

Skin Type: Normal

Ingredient: Niacinamide

Percentage of Ingredient to be applied: 5

The predicted skin reaction is: Brightening

**Svm**

Please enter the following details:

Age: 18

Melanin Concentration: 25

Collagen Amount: 74

Epidermis Thickness: 0.54

Hydration Level: 82

Skin Type: normal

Ingredient: niacinamide

Percentage of Ingredient to be applied: 5

The predicted skin reaction is: Neutral Reaction

**rfc**

Please enter the following details:

Age: 45

Melanin Concentration: 100

Collagen Amount: 10

Epidermis Thickness: 0.10

Hydration Level: 15

Skin Type: Sensitive

Ingredient: Vitamin C

Percentage of Ingredient to be applied: 78

The predicted skin reaction is: Negative

Nvb

Please enter the following details:

Age: 45

Melanin Concentration: 100

Collagen Amount: 10

Epidermis Thickness: 0.10

Hydration Level: 15

Skin Type: sensitive

Ingredient: Vitamin c

Percentage of Ingredient to be applied: 78

The predicted skin reaction is: Irritation Reaction

SVM

Please enter the following details:

Age: 45

Melanin Concentration: 100

Collagen Amount: 10

Epidermis Thickness: 0.10

Hydration Level: 15

Skin Type: sensitive

Ingredient: vitamin c

Percentage of Ingredient to be applied: 78

The predicted skin reaction is: Brightening Reaction

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**rfc**

Please enter the following details:

Age: 35

Melanin Concentration: 29

Collagen Amount: 51

Epidermis Thickness: 0.38

Hydration Level: 20

Skin Type: combination

Ingredient: Hyaluronic acid

Percentage of Ingredient to be applied: 2

The predicted skin reaction is: Brightening

**Nvb**

Please enter the following details:

Age: 35

Melanin Concentration: 29

Collagen Amount: 51

Epidermis Thickness: 0.38

Hydration Level: 20

Skin Type: combination

Ingredient: hyaluronic acid

Percentage of Ingredient to be applied: 2

The predicted skin reaction is: Positive Reaction

**Svm**

Please enter the following details:

Age: 35

Melanin Concentration: 29

Collagen Amount: 51

Epidermis Thickness: 0.388

Hydration Level: 20

Skin Type: combination

Ingredient: hyaluronic acid

Percentage of Ingredient to be applied: 2

The predicted skin reaction is: Positive Reaction

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**rfc**

Please enter the following details:

Age: 63

Melanin Concentration: 92

Collagen Amount: 26

Epidermis Thickness: .12

Hydration Level: 23

Skin Type: Sensitive

Ingredient: salicylic acid

Percentage of Ingredient to be applied: 14

The predicted skin reaction is: Irritation

**Nvb**

Please enter the following details:

Age: 63

Melanin Concentration: 92

Collagen Amount: 26

Epidermis Thickness: 0.12

Hydration Level: 23

Skin Type: sensitive

Ingredient: salicylic acid

Percentage of Ingredient to be applied: 14

The predicted skin reaction is: Positive Reaction

**Svm**

Please enter the following details:

Age: 63

Melanin Concentration: 92

Collagen Amount: 26

Epidermis Thickness: 0.12

Hydration Level: 23

Skin Type: sensitive

Ingredient: salicylic acid

Percentage of Ingredient to be applied: 14

The predicted skin reaction is: Brightening Reaction

**Nvb**

Please enter the following details:

Age: 62

Melanin Concentration: 94

Collagen Amount: 21

Epidermis Thickness: 0.15

Hydration Level: 26

Skin Type: sensitive

Ingredient: retinol

Percentage of Ingredient to be applied: 6.7

The predicted skin reaction is: Positive Reaction

**SVM**

Please enter the following details:

Age: 62

Melanin Concentration: 94

Collagen Amount: 21

Epidermis Thickness: 0.15

Hydration Level: 26

Skin Type: sensitive

Ingredient: retinol

Percentage of Ingredient to be applied: 6.7

The predicted skin reaction is: Brightening Reaction

**nvb**

Please enter the following details:

Age: 10

Melanin Concentration: 32

Collagen Amount: 60

Epidermis Thickness: 0.58

Hydration Level: 59

Skin Type: Sensitive

Ingredient: Kojic acid

Percentage of Ingredient to be applied: 34.27

The predicted skin reaction is: Irritation Reaction

**Rfc**

Please enter the following details:

Age: 10

Melanin Concentration: 32

Collagen Amount: 60

Epidermis Thickness: 0.58

Hydration Level: 59

Skin Type: sensitive

Ingredient: kojic acid

Percentage of Ingredient to be applied: 34.27

The predicted skin reaction is: Negative

**Svm**

Please enter the following details:

Age: 10

Melanin Concentration: 32

Collagen Amount: 60

Epidermis Thickness: 0.58

Hydration Level: 59

Skin Type: sensitive

Ingredient: kojic acid

Percentage of Ingredient to be applied: 34.27

The predicted skin reaction is: Brightening Reaction